



Malformed horns of Gaur (*Bibos gaurus*).

near Hanakere in the Biligirirangan Hills, Mysore. We feel sure it will interest you and some of your readers.

MYSORE,

VAN INGEN & VAN INGEN.

January 24, 1944.

#### VIII.—OBSERVATIONS ON THE ELEPHANT AND OTHER MAMMALS IN THE ANAMALAI HILLS OF COCHIN.

These notes were made in the northern area of the Anamalai Hills, at an altitude of between fifteen hundred and two to three thousand feet, during a month spent studying the fauna between February 12th and March 10th, 1944.

I. The Indian Elephant (*Elephas maximus indicus*): I have three notes worthy of record. Taking them chronologically:

*February 14th*: I was watching, from the opposite slope of a narrow river valley, a herd of twenty-five to thirty elephants moving through a bamboo thicket. They stopped occasionally to feed, but were definitely on the move with loud cracking and snapping of bamboos. One of the local forest guards with me drew my attention to a full-grown bull which was lagging behind the remainder and pushing his way about in a rather dense thicket, giving us an occasional glimpse of him. Presently he appeared at the lower edge of the thicket, just above the river-bed, where he stood facing us, keeping quite still, but obviously on the alert.

A few moments later came a sudden crash, as another elephant, up to now hidden, blundered out of the same thicket, and went down into the dry bed of the river, perhaps fifty yards from the tusker, and out of his sight. He did not follow, but showed definite interest; soon afterwards he disappeared silently a short way into the bamboos, while the second animal remained motionless in the river bed. After two or three minutes, it climbed up the bank on our side of the river, and into full view, to reveal itself as a cow. She moved very silently along the bank, in the opposite direction to the herd, through a thin growth of bamboo,

as if on 'tip-toe,' and stopped after some forty yards. The tusker meanwhile seemed to be making cautiously for her previous position in the stream bed. Unfortunately darkness was falling, and further observation was not possible.

The whole episode savoured of a game of hide-and-seek, and was, I assume, a phase of the courtship.

It is worth noting that there was at least one other tusker with the herd, who showed no interest, but moved on with the rest.

*March 5th*: Going out late in the afternoon after wild pig, I heard much crashing and rampaging in the undergrowth, not far from the forest track; I approached with my shikari as near as I dared; almost at once a big tusker reared up on his hind legs above the bamboo, and lunged forwards—followed by a crash as another bull, at which it was evidently aiming, lumbered off out of sight. The first bull did not follow it, but remained still, and the incident seemed over.

An hour later I was returning along the same path, and came on him moving about in much the same area as before; I sat down to watch, and suddenly this bull, up to now comparatively quiet, broke cover, and came past at full gallop, back arched and all his 'hackles' up—a gigantic and terrifying spectacle—to hurl himself into the thicket where the second animal had disappeared some time before. Nothing further transpired, and the other had evidently moved further on.

It was getting late, and I was unable to stop longer: but some way further down the path, I came on the second beast who had slipped well away to one side, and was standing motionless among the undergrowth.

The Kadar tribesmen of these hills and the forest guards inform me that running fights between bull elephants are quite frequent; and they maintain that it is the general rule for a tusker sooner or later to develop a feud against another. These feuds are said to be kept up intermittently over months or even years, and with ever-growing intensity, until the climax is reached in a battle royal, lasting several days, and invariably ending in the death of one or even both combatants. The final stages are said to be extremely noisy, and the tribesmen follow up at a safe distance to wait for the ivory of the vanquished.

I was told that such fights are particularly common during the two or three months immediately preceding the rains.

*March 7th*: I had come unexpectedly on a solitary bull, and beat a rapid retreat to a safe distance. He turned off the forest track, and after browsing a little, vanished into the forest. I was on the point of continuing on, when another elephant appeared round a bend in the path; this time a *calf*; it is naturally unheard of for a calf to be on its own, or to lead the way at any time. But very close behind it, there came into view the head and shoulders of a big cow; the two of them advanced down the path, the calf leading all the while, and both moving with extreme, exaggerated slowness. From my cover, eighty yards distant I could only wonder what so strange a reversal of normal habit might mean,

until, as the line of the track brought them into side view, the mystery explained itself; for, hidden, almost invisible beneath the body of the mother was a second and minute calf, perhaps born only few hours previously, and which I judged to be week old at the most. As far as I could see it suckled continuously.

The pitiable reluctance of the larger calf—a picture of sulky bewilderment—to lead the way instead of trotting safely at its mother's side was comical to watch. It tried again and again to turn back, only to be countered every time by a swing forward of its mother's head and trunk. She kept up a ceaseless rumbling-grumbling, which I took to be a warning to her larger offspring to keep its place in front. Her skill and patience in controlling simultaneously each of her two offspring was quite remarkable. She moved at a shuffling walk, infinitely slow, stopping at frequent intervals, adjusting her every movement to keep step with the faltering pace of her newly-born calf. She as successfully kept the older one at 'trunk's length' in front, goading it forwards away from its normal position, so preventing any risk of interference with its diminutive brother or sister.

After some minutes she guided the party off the track, and into a stretch of light jungle, where I did not care to follow her.

Size is notoriously difficult to estimate in the field, but the larger calf appeared to be about four and a half feet at the shoulder or rather less; local opinion put its age at about two years. I do not know at what intervals elephants are known to breed, but in this instance, allowing for the recognised gestation period of 641 days, and assuming the age of the larger calf as correctly estimated, it seems that the two calves must have followed each other in immediate succession, the mother being possibly in breeding condition very soon after the first calf was born. It is curious that the customary female helper or 'nurse-maid' which is known always to assist with a calf, should have been absent, but I think it likely, especially in view of the very slow movements of the small calf, and the obvious bewilderment of the larger, that the smaller one was not more than a few hours old, and the 'helper' had not yet started on her duties.

I questioned the Kadar tribesmen and the forest guards concerning the breeding season; they stated quite definitely that they see small calves in every month of the year, and did not believe the 'Āna' to have any fixed breeding season.

The brief glimpse of courtship, the pugnacity of the bulls, and the additional fact that there were large bulls with every herd I saw, indicate February and March—the two months preceding the rains—as a time of breeding activity. On the other hand, the newly-born calf I saw must have started existence about June 1942, in the height of the rainy season.

II. Of the larger Game Animals, it is satisfactory to record that Gaur (*Bos bibos gaurus*), Tahr (*Hemitragus hylocrius*), Sambar (*Rusa unicolor*), Chital (*Axis axis*) and Mutjac (*Muntiacus muntjak*) all seem to be maintaining their numbers well in the area. I found Chital particularly numerous, and they are said to have increased somewhat during the past few years. I saw a number of good stages.

The Kadar tribe have a definite Taboo against eating either Sambar or Bison, but will take all other animals including the Langur Monkey. I watched four to five herds of Bisson all of which included large bulls, and I only saw one solitary bull. The strange wailing, piping note, usually regarded as the breeding call of the bull, was much in evidence. I came on one small calf, possibly two to three months old.

The Tahr or 'Nilgiri Ibex' seems to be little disturbed; I saw one herd of about twenty.

Chevrotain or Mouse Deer (*Moschiola meminna*) were likewise plentiful. I stumbled on one in a clump of Bamboo during the heat of the day, it bounded out and stopped in open ground. I kept perfectly still, and the little creature, though not more than ten yards distant and in full view, seemed quite unable to locate me, turning its head this way and that as if suspicious but puzzled.

I accordingly made a slight movement of my hand, of which it took no notice. Nor could I get it to respond at all to any movement, even when looking straight in my direction. To the smallest noise however it was most sensitive, instantly turning in the direction whence it came. These observations suggest that the chevrotain is extremely short-sighted, or even blind by day.

The protective colouration of this charming little deer is quite perfect. I heard a slight rustle one afternoon from beneath some *Lantana* bushes, and it took me some minutes to make out a mouse deer, crouched not five feet away, and this even though the ground was almost bare.

They are occasionally caught and tamed by the Kadars who say that they become very docile and follow their master within a few days of capture.

Tiger seem reasonably common in the hills, but black panther are very scarce, although common some years ago.

Of the three monkeys found in the Anamalais, the Nilgiri Langur (*Kasi Johnii*) is abundant, but the forest Officer informed me that they have shown some decrease during the past two or three years, possibly from an epidemic. A limited number are shot, mainly for the supposed medicinal value of the liver; they fetch a price of fifteen rupees when sent down to the plains for this purpose.

The handsome Lion-faced Macaque (*Macaca silenus*) is scarce. I found it twice, once a male in loose association with a party of Langurs, and also a family party of four or five feeding in a *Ficus* tree, oddly enough in company with the Great Indian Hornbill (*Dichoceros bicornis*).

I was intrigued to come on a party of the small Bonnet Macaque (*Macaca radiata*) bathing in a river, jumping in from a foot or more above the water, or hanging by their hands from fringing Bamboos, and letting themselves drop. They swam round in all circles, only the head above water, never venturing far out, and with every sign of enjoyment.

The Malabar Squirrel (*Ratufa indica maxima*) was pleasantly common, as a rule in evergreen forest, but a few in purely deciduous areas.



The beautiful Stripe-necked Mongoose (*Herpestes vitticollis*) was also common, always alone, and always in marshy ground or near water. Its long chestnut fur shows up from some distance. It was very shy and wary, with extremely good powers of sight and hearing.

I was anxious to find the Pangolin (*Manis crassicaudata*) known in the hills as 'Üdümbü', and a familiar animal to the Kadars and forest guards, who described them as common, and sometimes caught by dogs, especially after the rains; but even the offer of a substantial reward failed to produce a specimen.

14, A. B. P. O.,  
INDIA.  
March 10, 1944.

C. R. STONOR,  
Captain.  
2nd Assam Regiment.

[No exact data on the rate of growth in elephants is available. But some indication is provided in the note by Mr. Gordon Hundley (*Journ. B. N. H. S.*, Vol. xxxvii, No. 2, p. 487) which gives statistics of the rate of growth of calves, born in the stock of a timber trading company in Burma. At birth the average height of 109 male and 111 female calves was about 3 ft. high. No increase in height was registered in the first year. In the second year 8 male calves averaged 4' 2" : 5 females—3' 11". In the third year, 7 males averaged 4' 5". On this basis the 4' 6" calf observed by Captain Stonor must have been quite 3 years old. The period of gestation has been ascertained to be about 19 months, though it is said to vary from 18-22, as such impregnation for the second offspring must have taken place at least a year or so after the first calf was born. It is a common belief that most animals have well demarcated breeding seasons. Critical investigation has shown, that while there may be an annual period when breeding activity is more marked, a relatively large number of animals breed throughout the year—particularly in tropical countries. The frequent encounters between bull elephants referred to by the author are preliminaries to the establishment of lordship over the females. They occur as is shown, more commonly between the onset of the hot weather and the commencement of the rains—the period when breeding activity is more intense.—Eds.]

#### IX.—BEARDED BEE-EATER (*ALCEMEROPS ATHERTONI*) IN THE CENTRAL PROVINCES.

I sent you recently some notes on bird movements in the C.P. When on tour near Pachmarhi recently I saw a single specimen of the Bearded Bee-eater, *Alcemerops athertoni*. This is a new locality for the species. In Mr. Osmaston's list of Pachmarhi birds published in your Journal No. xxviii, 457 as far as I remember, he recorded hearing this bird but never saw it. It is not given in D'Abreu's list published in Vol. xxxviii.

HOSHANGABAD, C.P.,  
April 8, 1944.

C. HEWETSON.

[Mr. Osmaston subsequently confirmed his original record by sight (p. 805 of the same volume). Messrs. Sálím Ali and H. Abdulali